

In the Claims:

Please amend claims 1-16 as follows:

1. (Currently Amended) A method for retrieving data from a database according to retrieval conditions set forth in an issued SQL sentence, ~~database retrieving method~~, comprising:

making a comparison between a cost required when retrieval is performed after an index corresponding to a retrieval condition is generated and a cost required when ~~entire~~-retrieval is performed without an index;

generating an index corresponding to the retrieval condition if the cost required when the ~~entire~~-retrieval is performed without an index is higher as a result of the cost comparison; and

retrieving ~~a~~ the data from the database by using the generated index.

2. (Currently Amended) A ~~database retrieving method~~ for retrieving data from a database according to retrieval conditions set forth in an issued SQL sentence, comprising:

making a comparison between a cost required when retrieval is performed after an index corresponding to a retrieval condition is generated and a cost required when ~~entire~~-retrieval is performed without an index;

determining whether or not a first index which satisfies a condition wider than the retrieval condition exists among already generated indexes, if the cost required

when the ~~entire~~-retrieval is performed without an index is higher as a result of the cost comparison;

generating a second index which satisfies only the retrieval condition by using the first index, if the first index which satisfies the wider condition exists; and

retrieving a ~~the~~ data from the database by using the generated second index.

3. (Currently Amended) A ~~database-retrieving~~ method for retrieving data from a database according to retrieval conditions set forth in an issued SQL sentence, comprising:

making a comparison between a cost required when retrieval is performed after an index corresponding to a retrieval condition is generated and a cost required when ~~entire~~-retrieval is performed without an index;

determining whether or not two or more indexes which satisfy the retrieval condition by being combined exist among a plurality of already generated indexes, if the cost required when the ~~entire~~-retrieval is performed without an index is higher as a result of the cost comparison;

generating an index corresponding to the retrieval condition by combining the two or more indexes, if the two or more indexes exist; and

retrieving a ~~the~~ data from the database by using the generated index.

4. (Currently Amended) The database-retrieving method according to claim 1, further comprising:

managing data of the number of accesses, a generation date and time, and an update frequency of the generated index; and

deleting the generated index according to management status of the data.

5. (Currently Amended) The database-retrieving method according to claim 1, further comprising:

determining whether or not an already generated index that is applicable to an access process exists, if an access to the database is a data update or deletion;

determining whether or not access performance of the access process is degraded due to existence of the index, if the index exists; and

deleting the index prior to start of the access process, if the access performance is degraded.

6. (Currently Amended) The database-retrieving method according to claim 2, further comprising:

managing data of the number of accesses, a generation date and time, and an update frequency of the generated index; and

deleting the generated index according to management status of the data.

7. (Currently Amended) The ~~database retrieving~~ method according to claim 2, further comprising:

determining whether or not an already generated index that is applicable to an access process exists, if an access to the database is a ~~dated~~data update or deletion;

determining whether or not access performance of the access process is degraded due to existence of the index, if the index exists; and

deleting the index prior to start of the access process, if the access performance is degraded.

8. (Currently Amended ) The ~~database retrieving~~ method according to claim 3, further comprising:

managing data of the number of accesses, a generation date and time, and an update frequency of the generated index; and

deleting the generated index according to management status of the data.

9. (Currently Amended) The ~~database retrieving~~ method according to claim 3, further comprising:

determining whether or not an already generated index that is applicable to an access process exists, if an access to the database is a data update or deletion;

determining whether or not access performance of the access process is degraded due to existence of the index, if the index exists; and

deleting the index prior to start of the access process, if the access performance is degraded.

10. (Currently Amended) A computer-readable storage medium on which is recorded a program for causing a computer to execute a data retrieval process from a database according to retrieval conditions set forth in an issued SQL sentence, when the data retrieving process is being used by the computer, said process comprising:

making a comparison between a cost required when retrieval is performed after an index corresponding to a retrieval condition is generated and a cost required when ~~entire~~-retrieval is performed without an index;

generating an index corresponding to the retrieval condition if the cost required when the ~~entire~~-retrieval is performed without an index is higher as a result of the cost comparison; and

retrieving ~~at~~ the data from the database by using the generated index.

11. (Currently Amended) A computer-readable storage medium on which is recorded a program for causing a computer to execute a data retrieving process from a database according to retrieval conditions set forth in an issued SQL sentence, when the data retrieving process is being used by the computer, said process comprising:

making a comparison between a cost required when retrieval is performed after an index corresponding to a retrieval condition is generated and a cost required when ~~entire~~ retrieval is performed without an index;

determining whether or not a first index which satisfies a condition wider than the retrieval condition exists among already generated indexes, if the cost required when the ~~entire~~ retrieval is performed without an index is higher as a result of the cost comparison;

generating a second index which satisfies only the retrieval condition by using the first index, if the first index which satisfies the wider condition exists; and

retrieving ~~at~~ the data from the database by using the generated second index.

12. (Currently Amended) A computer-readable storage medium on which is recorded a program for causing a computer to execute a data retrieval process from a database according to retrieval conditions set forth in an issued SQL sentence when the data retrieving process is being used by the computer, said process comprising:

making a comparison between a cost required when retrieval is performed after an index corresponding to a retrieval condition is generated and a cost required when ~~entire~~ retrieval is performed without an index;

determining whether or not two or more indexes which satisfy the retrieval condition by being combined exist among a plurality of already generated indexes, if

the cost required when the ~~entire~~ retrieval is performed without an index is higher as a result of the cost comparison;

generating an index corresponding to the retrieval condition by combining the two or more indexes, if the two or more indexes exist; and

retrieving ~~at~~ the data from the database by using the generated index.

13. (Currently Amended) ~~A database retrieving apparatus~~ Apparatus ~~fro~~ for retrieving data from a database according to retrieval conditions set forth in an issued SQL sentence, comprising:

an access process optimizing unit making a comparison between a cost required when retrieval is performed after an index corresponding to a retrieval condition is generated and a cost required when ~~entire~~ retrieval is performed without an index;

a dynamic index generating unit generating an index corresponding to the retrieval condition if the cost required when the ~~entire~~ retrieval is performed without an index is higher as a result of the cost comparison; and

an access processing unit retrieving ~~at~~ the data from the database by using the generated index.

14. (Currently Amended) ~~A database retrieving apparatus~~ Apparatus ~~for retrieving data from a database according to retrieval conditions set forth in an issued SQL sentence~~, comprising:

an access process optimizing unit making a comparison between a cost required when retrieval is performed after an index corresponding to a retrieval condition is generated and a cost required when ~~entire~~-retrieval is performed without an index;

an index managing unit determining whether or not a first index which satisfies a condition wider than the retrieval condition exists among already generated indexes, if the cost required when the ~~entire~~-retrieval is performed without an index is higher as a result of the cost comparison;

a dynamic index generating unit generating a second index which satisfies only the retrieval condition by using the first index, if the first index which satisfies the wider condition exists; and

an access processing unit retrieving the data from the database by using the generated second index.

15. (Currently Amended) ~~A database retrieving apparatus,~~Apparatus for retrieving data from a database according to retrieval conditions set forth in an issued SQL sentence, comprising:

an access process optimizing unit making a comparison between a cost required when retrieval is performed after an index corresponding to a retrieval condition is generated and a cost required when ~~entire~~-retrieval is performed without an index;

an index managing unit determining whether or not two or more indexes which satisfy the retrieval condition by being combined exist among a plurality of already



generated indexes, if the cost required when the ~~entire~~ retrieval is performed without an index is higher as a result of the cost comparison;

a dynamic index generating unit generating an index corresponding to the retrieval condition by combining the two or more indexes, if the two or more indexes exist; and

an access processing unit retrieving the data from the database by using the generated index.

16. (Currently Amended) ~~A database retrieving apparatus,~~ Apparatus for retrieving data from a database according to retrieval conditions set forth in an issued SQL sentence, comprising:

access process optimizing means for making a comparison between a cost required when retrieval is performed after an index corresponding to a retrieval condition is generated and a cost required when ~~entire~~ retrieval is performed without an index;

dynamic index generating means for generating an index corresponding to the retrieval condition if the cost required when the ~~entire~~ retrieval is performed without an index is higher as a result of the cost comparison; and

access processing means for retrieving the data from the database by using the generated index.